

Using DNA to Determine Relationships

Your DNA matches are probably your relatives. But a DNA test only suggests a relationship exists. This class will walk you through the process of determining the common ancestor between you and a DNA match or among a cluster of DNA matches.

Start by Evaluating Each Match

Review the name of the match and the manager of the DNA kit (if different than the match). Identify what generational relationship you may be to match by comparing ages of the match and their parents or grandparents. Review the Shared cM Project to determine which potential relationships that amount of DNA may suggest. Also consider what clusters your match belongs. Evaluating the match will give you a sense of where in your tree to search for a common ancestor.

Determine Your Relationship

1. Choose a match. Evaluate the match.
2. Review the match's tree. If the tree is incomplete, either build out their tree or contact the match for more information.
3. Identify the most recent common ancestor or MRCA. Remember that you will need to be familiar with your own family tree in order to identify the MRCA.
4. Determine your relationship to the match. It may be helpful to draw out the relationship in a descendency chart or by creating a What Are the Odds tree.
5. Record the relationship using the notes feature on the DNA website or in a separate spreadsheet or file.

Types of Trees

Your DNA matches may have different types of trees. Determining your relationship to matches with different types of trees may require unique strategies.

If a match has a **Full Tree**, review their tree and determine the common ancestor. If you cannot find a common ancestor, it is possible there is a non-paternal event (NPE) or misattributed parental event (MPE) either in your line or in the ancestry of your match. Review the shared matches to determine whether the NPE/MPE is in your tree.

If a match has a **Small Tree** with at least one name and date for one ancestor, see if you can fill in their tree either by searching other trees or build their tree for them.

If a match has not yet linked their DNA results to their tree, review all of their unlinked trees and see if you can figure out the relationship. Be careful, if the DNA kit is managed by someone else, the unlinked trees may belong to the kit owner, not the test taker.

If a match does not have a tree or has a private tree, use clusters to determine which line they belong to. If they are part of the line you are researching, contact them. However, keep your communication short and to the point. Remember that many people take DNA tests to see their ethnicity results but are unlikely to reply.